

Private Atom Reactor In This Area Planned

By PETER KIHSS

A plan for the nation's first nuclear reactor entirely owned and operated by private industry was announced here yesterday by the American Machine and Foundry Company. It would use radiations for confidential experiments for co-operating companies.

Gen. Walter Bedell Smith, retired, vice chairman of the foundry concern's board, said invitations to join the scheme had gone to companies in the fields of electronics, petroleum, food, pharmaceutical and chemical products, ceramics, rubber, metals, textiles, agriculture, machinery and others.

The project would occupy 250 acres somewhere in the New York area. A so-called swimming pool reactor would use uranium fuel surrounded by water serving as a moderator, cooler and shield.

The atomic furnace would

operate at 100 to 1,000 kilowatts, and produce ten-trillion neutrons a square centimeter a second for radiation experiments. The capital investment would be \$500,000 to \$1,500,000, depending on site and type of building. Operating cost would be \$125,000 a year.

Companies now can use the Atomic Energy Commission's 30,000-kilowatt Materials Testing Reactor at Arco, Idaho, with a ten times greater neutron flux at charges covering costs. But Arthur V. Peterson, director of the foundry company's atomic energy department, said they must wait in line behind priority Government work and cannot keep results confidential.

Two other private reactors for industrial research are being advanced by non-profit institutions. The Illinois Institute of Technology has signed up seven companies to share costs and results of a Chicago reactor. It hopes to enlist eight more. The Battelle Memorial Institute awarded a contract to American Machine and Foundry last Friday to build a comparable reactor near Columbus, Ohio.

The only privately owned reactor now in operation is at North Carolina State College. It is used primarily for engineering training and college research.

The Atomic Energy Commission has also agreed to allocate fuel for reactors to be built by Pennsylvania State University and the University of Michigan.